

REMARKS

Request for Reconsideration

The Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action, but remain of the position that patentable subject matter is present. The Applicants respectfully request reconsideration of the Examiner's position based on the amendments to the specification, claims and the following remarks.

Present Invention

The present invention is directed to angular contact ball bearings where the low shoulder of the inner raceway of the outer ring is sloped outward towards the outer edge of the bearing and the top surface of the cage which opposes the low shoulder is also sloped toward the outer edge of the bearing. The two sloping surfaces are complementary and slope upward in relation to the axis of rotation of the bearing.

Figures 1 and 2 depict these complementary sloping surfaces and new claim 24 is presented to particularly point out and distinctly claim these aspects of the present invention.

Claim Status

Claims 7, 9-12, 15-20, and 24 are pending. Claims 1-6, 8, 13 and 21-23 have been canceled herein.

Information Disclosure Statement and Specification Amendment

The Examiner notes the listing of references in the specification is not a proper information disclosure statement and that 37 C.F.R. 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office. The Examiner also noted the typographical error for the reference cited on page 3.

The specification has been amended to correct the Patent Number on page 3 and an SB08A Form citing this U.S. Patent is submitted herewith. Support for this amendment is on page 4, line 3. Also, the fee associated with this submission is paid concurrently herewith.

Additionally, page 5 has been amended to delete the reference to claim 1. Additionally, the SBO8A form cites references cited by the German Patent Office in the corresponding German Application. Copies of the non-U.S. Patent Office Publications with English Abstracts, where available, have been submitted. Because this IDS is filed after the first Office Action the fee associated with the IDS has been paid concurrently. Should any additional fees be necessary for consideration of this IDS, appropriate requests are made and authority is given to debit Account Number 02-2275.

Drawings Rejections

The drawings were objected to for (1) failing to show (a) the distances between the axis of rotation and the run-on surface become smaller as they become increasingly axially remote from a center of the pocket (claim 2); and (b) truncated cone (claim 16); and (2) not having uniformly thick and defined lines, letters and numbers.

Claim 2 has been canceled.

Claim 16 is illustrated in Figure 1, the truncated cone is defined by the lines that make up the web. See description on page 13, lines 2-6.

Replacement sheets for all the drawings with uniform thick and defined lines, letters and numbers are submitted herewith.

Claim Objections

The Examiner objected to Claim 4 and suggested changing in line 3 “directions” to “direction.” Such a suggestion is appreciated; however, claim 4 has been canceled herein.

The Examiner objected to claim 14 under 37 CFR 1.75(c) as failing to further limit the subject matter of a previous claim. Claim 14 has been canceled herein.

Claim Rejections – 35 USC § 112

Claims 1-23 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctively claim the subject matter which Applicants regards as the invention.

Claims 1-6, 8, 13-14, and 21-23 have been canceled.

Claims 7, 9-12 and 15-20 have been amended to address the rejection and are now deemed acceptable.

Prior Art Rejections

- (1) Claims 1 and 21 had been rejected as anticipated by Sato;
- (2) Claims 21 and 22 had been rejected as anticipated by Tada;

- (3) Claims 1, 3-7 had been rejected as unpatentable over Negele in view of Bonengel;
- (4) Claim 2 had been rejected as unpatentable over Negele in view of Bonengel and Kern;
- (5) Claims 8-10, 12-14 17-20 are rejected as unpatentable over Negele in view of Bonengel and Tada;
- (6) Claim 11 had been rejected as unpatentable over Negele in view of Bonengel, Tada and Sato;
- (7) Claims 15 and 16 had been rejected as unpatentable over Negele in view of Bonengel, Tada, and Tsuji; and
- (8) Claim 23 is rejected as unpatentable over Tada in view of Sato and Negele.

New claim 24 incorporates the limitations of claims 1, 3, 5, 6, and 8; and claims 1-6, 8, 13-14 and 21-23 have been canceled. Thus, rejections (1), (2), (4), and (8) are deemed moot.

Claim 24 recites and angular ball bearing where the low shoulder and the opposing surface of the cage are sloping outwardly axially away from the center of rotation. None of the references alone or in combination teach this and it is submitted that the claims are patentable over the references taken alone or in combination.

Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account Number 02-2275.

Respectfully submitted,
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